

# MANUFACTURING EXTENSION PARTNERSHIP

## Success Stories from the Field

### Masters Machine Company

#### Maine Manufacturing Extension Partnership

#### Masters Machine Company Improves Efficiency with Lean Workplace Organization

##### Client Profile:

Masters Machine Company, founded in 1957, is dedicated to the manufacturing of precision machined parts. Their core competencies are in CNC milling/turning and screw machine turning. The Round Pond, Maine facility currently employs 115 people.

##### Situation:

Masters Machine was experiencing a downturn in their sales; customers were delaying orders, and the company was forced to layoff a significant portion of their workforce. Masters Machines' Plant Manager, Steven Masters, recognized that this slower manufacturing period provided a good opportunity to put Lean workplace organizational principles into practice to help reduce lead time and wastes associated with searching and rework. Workplace organization (5S) has been identified as a strategic thrust for efficiency and attracting new customers. A project manager with the Maine Manufacturing Extension Partnership (Maine MEP), a NIST MEP network affiliate, met with Masters Machine, listened to their challenges, and proposed a Lean manufacturing pilot program to train employees in Lean awareness, Value Stream Mapping (VSM), and performing Kaizen events.

##### Solution:

Upon completion of the Principles of Lean training, Maine facilitated a VSM exercise for one machine cell focused on centralizing the electronic information system location which eliminated unnecessary changeover interruptions. The Kaizen events focused on 5S (Sort, Set in Order, Shine, Standardize, Sustain) events in the CNC Turning, Horizontal Milling and Secondary Ops departments. Efforts yielded a 15 percent reduction in changeover time and a 66 percent reduction in operator travel time during the changeover process in the CNC Turning area. Changes to the machine layout in Horizontal Milling resulted in a 41 percent reduction in product travel distance while freeing up 10 hours a week of operator time to redeploy to value added tasks. Across two of the Kaizen events, a total of 506 square feet of floor space was freed up that will be used for additional machines that will increase daily throughput.

##### Results:

- \* Estimated \$6,000 in cost savings.
- \* Reduced changeover time by 15 percent.
- \* Increased lead time by 44 percent.
- \* Reduced operator travel time by 163 percent.

##### Testimonial:

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"With the assistance of the Maine MEP, Masters has acquired the basic Lean structure that will allow the company the long-term cultural shift it needs to remain competitive moving into the future. Masters' Lean Team has shown all of us at Masters an exciting way forward by applying these simple principles to every day activities on our shop floor. I firmly believe that the upfront investment will pay for itself in ways that have yet to be fully realized. Thanks again to all at MEP."

Steven Masters, Plant Manager